

5-26-99

SUBJECT: **SAFETY OF ACCELERATOR FACILITIES**

1. **PURPOSE.** To transmit revised pages to DOE O 420.2, SAFETY OF ACCELERATOR FACILITIES, of 11-5-98.
2. **EXPLANATION OF CHANGE.** In Paragraph 4a(5) change the word “and” to “any” and in Paragraph 5b(2)(a) change the acronym “ARR” (Accelerator Readiness Review) to “ASE” (Accelerator Safety Envelope).
3. **FILING INSTRUCTIONS.**

a.	<u>Remove Pages</u>	<u>Dated</u>	<u>Insert Page</u>	<u>Dated</u>
	3	11-5-98	3	5-26-99
	5	11-5-98	5	5-26-99

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- b. After filing the attached pages, this transmittal may be discarded.

BY ORDER OF THE SECRETARY OF ENERGY:



RICK FARRELL
DIRECTOR OF HUMAN RESOURCES
AND ADMINISTRATION

| (5) The SAD must be prepared as a single document addressing the hazards of the entire accelerator facility or as separate SADs prepared for discrete modules of the facility such as injectors, targets, experiments, experimental halls, or any other type modules.

(6) The SAD must be maintained current and consistent with the administrative control measures and physical configuration of the facility and major safety equipment.

b. Accelerator Safety Envelope.

(1) A documented Accelerator Safety Envelope (ASE) must define the set of physical and administrative bounding conditions for safe operations based on the safety analysis documented in the SAD.

(2) Any activity violating the ASE must be terminated immediately; the activity must not recommence before DOE has been notified.

c. Unreviewed Safety Issue. Activities that involve an Unreviewed Safety Issue must not be performed if significant safety consequences could result from either an accident or a malfunction of equipment important to safety for which a safety analysis has not been performed. Activities involving an identified Unreviewed Safety Issue must not commence before DOE has provided written approval.

d. Accelerator Readiness Reviews. Accelerator Readiness Reviews (ARRs) must be performed prior to approval for commissioning and routine operation and as directed by the cognizant Secretarial Officer or a Field Element manager.

e. Training and Qualification.

(1) Training and qualification requirements must be established for each individual at an accelerator facility whose activities could affect safety and health conditions or whose safety and health could be affected by facility activities. Training and qualification must be documented and kept current.

(2) Only appropriately trained and qualified personnel, or trainees under the direct supervision of trained and qualified personnel, are permitted to perform tasks that may affect safety and health.

(3) All personnel assigned to or using the accelerator facility (including emergency response personnel) must be trained in the safety and health practices and emergency plans consistent with their involvement and the hazards present.

- (2) Approve recommencement of an activity at an accelerator facility after a shutdown ordered by the DOE cognizant Secretarial Officer or Assistant Secretary for Environment, Safety and Health because of an Unreviewed Safety Issue, violation of an ASE, or other safety concern.
- (3) Provide written guidance to line organizations for implementing the requirements of this Order.

b. DOE Field Element Manager.

- (1) Approve the commencement of commissioning activities for an accelerator facility or module thereof that does not have potential for more than minor on-site or more than negligible off-site impacts to workers, the public, or the environment after—
 - (a) approving a specific ASE upon finding that it will appropriately bound commissioning activities;
 - (b) finding that an appropriate ARR was conducted; and
 - (c) finding that the risks as analyzed in the SAD are acceptable when commissioning activities are conducted within the specified ASE.
- (2) Approve the commencement of routine operation activities for an accelerator facility or module thereof that does not have potential for more than minor on-site or more than negligible off-site impacts to workers, the public, or the environment after—
 - (a) approving the ASE upon finding that it will appropriately bound routine operation activities;
 - (b) finding that an appropriate ARR was conducted; and
 - (c) finding that the risks as analyzed in the SAD are acceptable when routine operation activities are conducted within the specified ASE.
- (3) After performing the duties in Paragraph 5b(1)(b) and 5b(1)(c), recommend DOE cognizant Secretarial Officer approval for commencement of commissioning activities for an accelerator facility or module thereof that has the potential for more than minor on-site or more than negligible off-site impacts to workers, the public, or the environment.